

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6. (Canceled)

7. (Currently amended) The ~~A~~ system of claim 6 for use in detecting and diagnosing ear related conditions, the system comprising: a device capable of obtaining a spectrum of reflected light from an ear of a subject; and a processing unit in connection with said device which is capable of translating the obtained spectrum of reflected light to one or more output values related to the condition of the ear, the processing unit translating the obtained spectrum by converting the obtained spectrum to at least one digital value and by further comparing between the digital value and at least one predetermined reference value to thereby obtain data indicative of the ear related conditions, wherein said processing unit comprises a spectral analytical instrument is in the form of a spectrometer, which receives said spectrum of reflected light and produces an analog signal indicative thereof.

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Reply to Office Action of July 2, 2004

8. (Original) The system of claim 7, wherein said spectrometer is sensitive to wavelengths of approximately between 400nm to 1200nm.

9. (Currently amended) The system of claim 67, wherein said spectral analytical instrument includes at least one filter.

10. (Currently amended) The system of claim 67, wherein said processing unit comprises a converter converting said analog signal into said at least one digital value.

11. (Original) The system of claim 10, wherein said processing unit further comprises a microprocessor interfaced with said converter .

12. (Original) The system of claim 11, wherein said microprocessor comprises an accessible memory.

13. (Currently amended) The system of claim 67, wherein said processing unit comprises a display for displaying said one or more output values.

14. (Original) The system of claim 13, wherein said display includes an LCD display.

15. (Currently amended) The system of claim 67, wherein said one or more output values indicate the health of the ear.

16. (Original) The system of claim 15, wherein said one or more output values indicate whether there is otitis media or serous otitis media.

17. (Original) The system of claim 16, wherein the statistical confidence of the decision is additionally indicated.

18. (Currently amended) The system of claim 67, wherein said at least one reference value is at least one digital value resulting from diagnosing the other ear of said subject with said system.

19. (Currently amended) The system of claim 67, wherein said at least one reference value is at least one digital value resulting from a diagnosis of a healthy ear with said system.

20. (Currently amended) The system of claim 67, wherein said at least one reference value is a statistical range values resulting from healthy ears.

21. (Currently amended) The system of claim 67, wherein said at least one reference value is a statistical range values resulting from ears with otitis media.

22. (Currently amended) The system of claim 67, wherein said at least one reference value is a statistical range values resulting from ears with serous otitis media.

23. (Currently amended) The system of claim 76, wherein at least one digital value includes at least one digital value of ~~an reflectance~~ reflectance at wavelength of approximately 650-700nm, and wherein the processing unit further compares said value to a statistical ~~reflectance~~ reflectance at a wavelength of approximately 650-700nm of a healthy ear thereby determining the redness degree of the tympanic membrane of said ear.

24. (Currently amended) The system of claim 76, wherein at least one digital value includes a digital value of ~~ana~~ reflectance of a wavelength of approximately 962 nm, and wherein the processing unit further compares said value to a statistical reflectance at a wavelength of approximately 962 nm of a healthy ear thereby determining the effusion degree in the middle ear.

25. (Currently amended) The system of claim 67, wherein said processing unit further comprises an input unit including at least a numeric keyboard and an LCD display, for inputting information, and for further saving said information with said one or more output values in a file.

26. (Original) The system of claim 25, wherein said information includes at least one of the following: user data and the side of said ear.

27. (Original) The system of claim 25, wherein said processing unit further comprises a clock for indicating the time and date of said one or more output values, and wherein the processing unit further saves said time and date with said one or more output values in said file.

28. (Original) The system of claim 25, wherein said processing unit is in communication with a personal computer.

29. (Currently amended) The system of claim 67, wherein said system is incorporated into a single hand - held unit.

30. (Original) The system of claim 29, wherein the single hand - held unit is an otoscope.

31. (Currently amended) The system of claim 67, wherein said device capable of obtaining a spectrum of reflected light is incorporated into an otoscope.

32. (Currently amended) The system of claim 67, wherein the processing unit is further connected to the internet.

33. (Currently amended) A method for detecting and diagnosing ear related conditions comprising operating the system of claim 67.

34-43. (Canceled)

44. (Currently amended) The system of claim 67, wherein said processing unit is operable to translate at least one selected region of the obtained spectrum of the reflected light to said one or more output values related to the condition of the ear.

45. (Currently amended) A system for use in detecting and diagnosing ear related conditions, the system comprising: a device capable of obtaining a spectrum of reflected light from

an ear of a subject; and a processing unit in connection with said device which is capable of translating the obtained spectrum of reflected light to one or more output values related to the condition of the ear, the processing unit comprises a spectral analytical instrument in the form of a spectrometer for receiving said spectrum and producing an analog signal indicative thereof, the processing unit being configured and operable for translating the obtained analog signal of the spectrum by converting the obtained analog signal of the spectrum to at least one digital value and by furtherfor comparing between the digital value and at least one predetermined reference value to thereby obtain data indicative of the ear related conditions, wherein at least one digital value includes at least one digital value of an reflectance at wavelength of approximately 650-700nm, and wherein the processing unit being configured and operable for further compares-comparing said value to a statistical reflectance at wavelength of approximately 650-700nm of a healthy ear thereby determining the redness degree of the tympanic membrane of said ear.

46. (Currently amended) A system for use in detecting and diagnosing ear related conditions, the system comprising: a device capable of obtaining a spectrum of reflected light from

an ear of a subject; and a processing unit in connection with said device which is capable of translating the obtained spectrum of reflected light to one or more output values related to the condition of the ear, the processing unit comprises a spectral analytical instrument in the form of a spectrometer for receiving said spectrum and producing an analog signal indicative thereof, the processing unit being configured and operable for translating the obtained analog signal of the spectrum by converting the obtained spectrum to at least one digital value and by for further comparing between the digital value and at least one predetermined reference value to thereby obtain data indicative of the ear related conditions, wherein at least one digital value includes a digital value of an reflectance of wavelength of approximately 962 nm, and wherein the processing unit being configured and operable for further compares-comparing said value to a statistical reflectance at wavelength of approximately 962 nm of a healthy ear thereby determining the effusion degree in the middle ear.